An ACI Standard

Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures (ACI 562-19) and Commentary

Reported by ACI Committee 562

ACI 562-19

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ACI 562-19, "Code Requirements for Assessment, Repair and Rehabilitation of Existing Concrete Structures," was developed to provide design professionals a code for the assessment of the damage and deterioration, and the design of appropriate repair and rehabilitation strategies. The code provides minimum requirements for assessment, repair, and rehabilitation of existing structural concrete buildings, members, systems and where applicable, nonbuilding structures. ACI 562-19 was specifically developed to work with the International Existing Building Code (IEBC) or to be adopted as a stand-alone code.

Keywords: assessment; bond; corrosion; damage; durability; evaluation; existing structure; fiber-reinforced polymer (FRP); interface bond; licensed design professional; maintenance; rehabilitation; reliability; repair; strengthening.

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ACI 562-19 supersedes ACI 562-16, was adopted May 1, 2019, and was published May 2019.

PREFACE

This code provides minimum requirements for assessment, repair, and rehabilitation of existing structural concrete buildings, members, systems and where applicable, nonbuilding structures. This code was developed by an ANSI-approved consensus process. This code can supplement the International Existing Building Code (IEBC), supplement the code governing existing structures of an authority having jurisdiction, or act as a stand-alone code in a locality that has not adopted an existing-building code. When this code is adopted as a stand-alone code, Appendix A should be used in place of Chapter 4.

The Code is specifically written for use by a licensed design professional. This code provides minimum requirements for assessment, design and construction, or implementation of repairs and rehabilitation, including quality assurance requirements, for structural concrete in service. This code has no legal status unless it is adopted by the authority having jurisdiction. Where the code has not been adopted, it serves as a standard to provide minimum requirements for assessment, and design and construction of repair and rehabilitation of existing structural concrete. ACI 318 provides minimum requirements for the materials, design, and detailing of structural concrete buildings and, where applicable, nonbuilding structures, and for new construction within existing structures where noted herein.

Key changes from ACI 562-16 to ACI 562-19 include:

(a) Text was added to simplify use of new materials that have the equivalent of an ICC-ES evaluation report in Chapter 1.

(b) The requirements for the basis of design report were simplified in Chapter 1.

(c) Requirements related to detailing of existing reinforcing steel in Chapter 4 have been clarified.

(d) The commentary in Chapter 8 was updated to include a listing of exposure categories that may affect durability.